

Remarks

I. Status of Claims

Claims 20-34 are pending in this application. Claims 20, 21, 24, and 27 have been amended by this Amendment. Claims 32-34 have been withdrawn from consideration by the Examiner based on the Restriction Requirement dated March 18, 2003, and Applicants' election, with traverse, of claims 20-31 dated April 16, 2003.

Claim 20 has been amended to clarify the scope of the present claims. Specifically, claim 20 has been amended to recite that the filter support plate comprises an internal surface and a plurality of elements, which define a plurality of sectors between and within which the filtered composition flows, i.e., the filtered material may pass through the sectors and between the sectors as it passes through the filter support plate. Support for this amendment can found throughout the specification as originally filed such as, for example, at pages 9, 10, 15-17, and Figures 3a & 3b.

Claims 21 and 27 have been amended to delete one of the two periods at the end of each claim. Claim 24 has been amended to remove the parentheses.

Accordingly, these amendments do not add new matter.

II. Information Disclosure Statement

Applicants thank the Examiner for returning the initialed PTO-1449 forms.

Applicants note, however, that one item by MINORU has not been initialed.

Applicants respectfully request that the Examiner consider the provided translation and indicate that on another copy of the PTO-1449 form.

III. Claim Objections

Claims 21 and 27 were objected to because each ended with two periods. See page 2 of the present Office Action. Claims 21 and 27 have been amended herein to remove one of the two periods in each claim. Applicants submit that the amendment of claims 21 and 27 renders the objection moot. Accordingly, Applicants respectfully request withdrawal of this objection.

IV. Rejection Under 35 U.S.C. § 112, second paragraph

Claim 24 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because of the parentheses. See page 2 of the present Office Action.

Claim 24 has been amended herein to remove the parentheses. Accordingly, claim 24 now recites that the composition has a Melt Flow Index lower than 15 g/10 min, wherein the Melt Flow Index is measured as per the standard ASTM 1238, with a capillary of diameter 2 mm, using a weight of 21 kg and heating the composition to a temperature of 240°C. Applicants submit that the amendment of claim 24 renders the objection moot. Accordingly, Applicants respectfully request withdrawal of this rejection.

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V. Rejections Under 35 U.S.C. § 103

Claims 20, 21, 25, and 26 have been rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 2,593,136 to Gliss ("*Gliss*") in view of U.S. Patent No. 5,367,030 to Gau et al. ("*Gau*") and U.S. Patent No. 6,495,760 to Castellani et al. ("*Castellani*"). Claims 20, 24-26, and 29-30 have been rejected under 35 U.S.C. § 103(a) as unpatentable over *Gliss* in view of *Gau* and U.S. Patent No. 6,025,422 to Hall ("*Hall*"). Claims 27, 28, and 31 have been rejected under 35 U.S.C. § 103(a) as unpatentable over *Gliss* in view of *Gau*, *Castellani*, and U.S. Patent No. 4,234,531 to Jocteur ("*Jocteur*"). See pages 3-7 of the present Office Action.

Applicants respectfully traverse these rejections for at least the following reasons.

Applicants' invention is not obvious over *Gliss* in view of *Gau*, *Castellani*, *Hall*, and/or *Jocteur*. As an initial matter, to establish a prima facie case of obviousness, the Examiner must show that three basic criteria have been met. See M.P.E.P. § 2143. First, the Examiner must demonstrate that the references when combined teach or suggest all the claim limitations. See M.P.E.P. § 2143.03. Second, the Examiner has not and cannot demonstrate that a reasonable expectation of success exists for the process resulting from the three proposed combinations of references. See M.P.E.P. § 2143.02.

A. The Five References Do Not Disclose the Claimed Filter Support Plate

In the present case, the five references cited by the Examiner fail to teach or suggest all of the limitations of the present claims. Specifically, the proposed

combinations of the cited references at least fail to teach or suggest the presently claimed filter support plate.

Claim 20, as amended, recites that the filter support plate comprises an internal surface and a plurality of elements, which protrude therefrom and define a plurality of sectors between and within which the filtered composition flows.

The Examiner has relied upon *Gliss* to teach a "support plate with plurality of sectors." See pages 3, 4, and 6 of the present Office Action. However, *Gliss* merely teaches a "backing plate 50 [which] includes a generally annular, frustoconical central portion 52 and radial arms 60-60 . . . The central portion 52 has a passage 62 therethrough" Col. 2, lines 13-17. The filtered composition "is free to pass through the outer portions of the tapered passage, the slots formed between radial arms 60-60 permitting this flow, so there is a minimum diversion of the major portion of the compound being forced through the extruding head." Col. 2, lines 28-33. While not explicitly stated, the filtered compositions also appear to flow through passage 62.

Thus, the compound in *Gliss* is not permitted to flow between a plurality of sectors as presently claimed. Rather the flow is "limited to the outer portions of the tapered passage," which is through slots formed by the radial arms, and passage 62. See col. 2, lines 28-33. There is no flow between sectors or between a sector and the passage 62 of the frustro conical portion. See Figures 1-3.

Further, none of *Gau*, *Castellani*, *Hall*, and *Jocteur* teach or suggest the presently claimed filter support plate. Accordingly, the combinations of references proposed by the Examiner fail to teach or suggest performing a filtration operation by

using a filter support plate, as defined by amended claim 20. For at least this reason, Applicants respectfully request withdrawal of this rejection.

Moreover, neither *Gliss* nor the four secondary references teach a filtration efficiency (E) that is greater than 0.8 or 0.9, as recited in claims 22 and 23. This is evidenced by a comparison of the drawings of Applicants' specification with those of *Gliss*. The Examiner has asserted that these efficiencies are intrinsic to *Gliss* (Office Action at 4); however, that position is inconsistent with the reported structures.

For example, Figure 3a/b of Applicants' specification discloses a filter support plate, which has eight narrow fins 37 that do not meet in the center and has an efficiency of 0.95. Specification at Figures 3a/b, page 27, lines 12-20. In contrast, Figure 2 of *Gliss* discloses a filter support plate with twice as many arms 60 as well as an annular portion 52. By definition this structure should yield a significantly smaller efficiency number. See specification at page 8, lines 6-18. Applicants estimate the efficiency to be about 68% [$A_o = (\pi(1.5)^2)/4 = 1.766$; $A_u = (\pi(0.5)^2)/4 + 16(0.5)(0.25(0.5)) = 0.195 + 1 = 1.196$]. Applicants invite the Examiner to conduct his own calculation.

Nothing in *Gliss* or *Gau*, *Castellani*, *Hall*, and *Jocteur* teach or suggest that the structure of the filter support plate should have an efficiency greater than the disclosed example.

**B. The Five References Do Not Provide
A Reasonable Expectation of Success**

In the present case, the Examiner has also failed to establish that either of the three proposed combinations yield a process with a reasonable expectation of

success for "filtering said composition [comprising at least one polymeric material and a mineral filler] transferred and plasticized by said extrusion screw," as recited in claim 20. See M.P.E.P. § 2143.02; *Micro Chem., Inc., v. Great Plains Chem. Co.*, 41 U.S.P.Q.2d 1238, 1245 (Fed. Cir. 1997). In fact, the Examiner has not even attempted to address whether the proposed combinations would yield a successful process.

"Both the suggestion and the expectation of success must be founded in the prior art, not in applicant's disclosure." See *In re Dow Chemical Co.*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). Here, the process of *Gliss* discloses a filtration method that is suitable for polymeric material; however, *Gliss* does not recognize or address the problems of filtering a polymeric material with a mineral filler. As disclosed by Applicants' specification, such a combination is highly viscous and difficult to process. Specification at page 5, lines 16-24.

The secondary references do not correct this deficiency. In fact, *Castellani* reports that the use of mineral filler deteriorates processability (col. 1, lines 64-65) but does not offer any mechanisms to solve the filtering problem. Similarly Hall reports that the use of mineral filler imposes extrusion limitation (col. 2, lines 2-3) but does not offer any mechanisms to solve the filtering problem. Finally, *Gau* appears to be silent on the issue. Accordingly, the references do not suggest how to achieve a successful filtration of such a product; rather, Applicants' experience shows a reasonable expectation of failure for the proposed combinations.

Accordingly, the combinations of references proposed by the Examiner fail to teach or suggest performing a filtration operation by using a filter support plate, as

defined by amended claim 20, and fail to provide a reasonable basis for success.

For at least these reasons, Applicants respectfully request withdrawal of this rejection.

VI. Conclusion

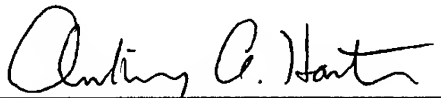
In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration of the pending claims, reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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